

MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes _____
no ☒

Property Name: Harford County Bridge No. H-07000 Inventory Number: HA-2046
Address: Phillips Mill Road over East Branch of Winters Run Historic district: yes ☒ no
City: Forest Hill Zip Code: _____ County: Harford
USGS Quadrangle(s): Jarrettsville
Property Owner: Harford County Department of Public Works Tax Account ID Number: _____
Tax Map Parcel Number(s): _____ Tax Map Number: _____
Project: Mid-20th Century Highway Bridges of Maryland (1948-1960) Agency: MD SHA
Agency Prepared By: _____
Preparer's Name: Ellen Jenkins URS Corporation Date Prepared: 10/20/2004
Documentation is presented in: Project Review and Compliance Files
Preparer's Eligibility Recommendation: _____ Eligibility recommended ☒ Eligibility not recommended
Criteria: ☒ A ☐ B ☒ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G
Complete if the property is a contributing or non-contributing resource to a NR district/property:
Name of the District/Property: _____
Inventory Number: _____ Eligible: ☐ yes ☐ no Listed: ☐ yes ☐ no
Site visit by MHT Staff ☐ yes ☒ no Name: _____ Date: _____

Description of Property and Justification: *(Please attach map and photo)*

Description

The Phillips Mill Road Bridge over the East Branch of Winters Run (MIHP # HA-2046, Bridge H-07000) was built in 1958 at the site of at least one earlier bridge over the East Branch of Winter's Run in Harford County. The present Phillips Mill Bridge is a single span prestressed concrete box girder bridge. It is one of five prestressed concrete box girders built in the state in 1958.

Determination of Eligibility

The Phillips Mill Road Bridge over the East Branch of Winters Run (MIHP # HA-2046, Bridge H-07000) in Harford County is not eligible for listing in the National Register for Historic Places under Criterion A as it does not reflect trends in the social, economic, industrial, and transportation development of its locality or of the state, region, or nation. The crossing is not a historic river crossing as the road and crossing have been moved.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ Eligibility not recommended ☒

Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

MHT Comments:

Jim Toulum
Reviewer, Office of Preservation Services

B. J. J.
Reviewer, National Register Program

6/2/2011
Date

6/3/11
Date

The Phillips Mill Road Bridge over the East Branch of Winters Run is not National Register-eligible under Criterion B, as it is not associated with an individual significant on the local, state, or national level.

The Phillips Mill Road Bridge over the East Branch of Winters Run is National Register-eligible under Criterion C on the state level with a period of significance of 1958. The bridge is one of the earliest examples of the pre-stressed concrete box girder bridges built in Maryland during the 1948-1960 period. The Phillips Mill Bridge retains sufficient integrity of design, materials, workmanship, association, setting, and location to stand as a representative example of a specific bridge type which may survive in substantial numbers.

National Register-eligibility under Criterion D was not investigated as part of this study.

SHA disagrees with the consultant's recommendation that this bridge is NRHP-eligible. Phillips Mill was constructed circa 1820, but appears to have closed by 1931 according to information provided in John McGrain's "Mollinography of Maryland." In order to maintain the the crossing in 1958, the Harford County Government chose to construct a utilitarian bridge as a replacement. It is not a significant example of prestressed concrete box girder, but is a common example of such bridges found on every highway in Maryland. SHA does not recommend it as eligible under NRHP Criteria A, B or C.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____

Eligibility not recommended _____

Criteria: A B C D Considerations: A B C D E F G

MHT Comments:

Reviewer, Office of Preservation Services_____
Date_____
Reviewer, National Register Program_____
Date

HA-2046

Phillips Mill Road Bridge over the East Branch of Winters Run

Phillips Mill

1958

Bridge H-07000, also known as the Phillips Mill Road Bridge, was built in 1958 and carries Phillips Mill Road over the East Branch of Winters Run. The bridge is a single span concrete box girder bridge that carries a two-lane road over a stream in a rural area with sparse residential development. The two concrete abutments have outer walls that are six feet long. A small concrete abutment to the west of the bridge marks the location of a former bridge (date unknown) that stood at this site and that was demolished to make way for the current span. Nine concrete box girders, each 27" deep and 36" wide with a half-inch joint, sit on the abutments to support an asphalt roadway. The roadway has two 11-foot wide traffic lanes, and the overall width of the bridge is 16 feet. A concrete parapet at each edge of the bridge sits on top of the concrete box girders and projects out slightly over the girders. The parapet supports steel pipes that are connected by concrete beams that form a guardrail for the bridge. The clear span of the bridge is 25 feet.

The Phillips Mill Road Bridge over the East Branch of Winters Run (MIHP # HA-2046, Bridge H-07000) was built in 1958 at the site of at least one earlier bridge over the East Branch of Winter's Run in Harford County. The present Phillips Mill Bridge is a single span prestressed concrete box girder bridge. It is one of five prestressed concrete box girders built in the state in 1958.

7. Description

Inventory No. HA-2046

Condition

<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins
<input type="checkbox"/> fair	<input type="checkbox"/> altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

Bridge H-07000, also known as the Phillips Mill Road Bridge, was built in 1958 and carries Phillips Mill Road over the East Branch of Winters Run. The bridge runs northeast-southwest along the road north of its intersection with Cosner Road and south of the location where MD 23 overpasses Phillips Mill Road. The bridge is located in a rural area of Harford County, south of Jarrettsville. The area immediately surrounding the bridge is characterized on the west by a grassy lawn and on the east by wild streambed growth and woods.

The bridge is a single span concrete box girder bridge that carries a two-lane road over a stream in a rural area with sparse residential development. The bottom of the beam angles with the two elevations of the abutments, with 13'-6" the highest clearance over the water and 3'-0" the lowest at the east abutment. The two concrete abutments have outer walls that are six feet long. A series of large chunks of slate protect the bank below the bridge, and a wall of slate rock to the southwest of the bridge contains two large drainage pipes. A small concrete abutment to the west of the bridge marks the location of a former bridge (date unknown) that stood at this site and that was demolished to make way for the current span.

Nine concrete box girders, each 27" deep and 36" wide with a half-inch joint, sit on the abutments to support an asphalt roadway. The roadway has two 11-foot wide traffic lanes, and the overall width of the bridge is 16 feet. A concrete sidewalk, about two feet wide and nine inches high, lines both sides of the roadway. A concrete parapet at each edge of the bridge sits on top of the concrete box girders and projects out slightly over the girders. The parapet supports steel pipes that are connected by concrete beams that form a guardrail for the bridge. The clear span of the bridge is 25 feet.

The bridge does not feature any obvious alterations or repairs. The concrete is generally in good visual condition with some visible spalling at the upper outer edges of the parapets.

8. Significance

Inventory No. HA-2046

Period	Areas of Significance	Check and justify below			
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> health/medicine	<input type="checkbox"/> performing arts	
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> archeology	<input type="checkbox"/> education	<input type="checkbox"/> industry	<input type="checkbox"/> philosophy	
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> architecture	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> invention	<input type="checkbox"/> politics/government	
<input checked="" type="checkbox"/> 1900-1999	<input type="checkbox"/> art	<input type="checkbox"/> entertainment/ recreation	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion	
<input type="checkbox"/> 2000-	<input type="checkbox"/> commerce	<input type="checkbox"/> ethnic heritage	<input type="checkbox"/> law	<input type="checkbox"/> science	
	<input type="checkbox"/> communications	<input type="checkbox"/> exploration/ settlement	<input type="checkbox"/> literature	<input type="checkbox"/> social history	
	<input type="checkbox"/> community planning		<input type="checkbox"/> maritime history	<input checked="" type="checkbox"/> transportation	
	<input type="checkbox"/> conservation		<input type="checkbox"/> military	<input type="checkbox"/> other: _____	

Specific dates 1958

Architect/Builder Robertson and Associates

Construction dates 1958

Evaluation for:

☒ National Register

☐ Maryland Register

☐ not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, followed by a narrative discussion of the history of the resource and its context. (For compliance projects, complete evaluation on a DOE Form – see manual.)

Statement of Significance

The Phillips Mill Road Bridge over the East Branch of Winters Run (MIHP # HA-2046, Bridge H-07000) was built in 1958 at the site of at least one earlier bridge over the East Branch of Winter's Run in Harford County. The present Phillips Mill Bridge is a single span prestressed concrete box girder bridge. It is one of five prestressed concrete box girders built in the state in 1958.

Historic Background and Support

Phillips Mill Road runs east-west between MD 23 Jarrettsville Road in the eastern interior of Harford County and Cosner Road in the southeast portion of the county. Phillips Mill Road crosses the Eastern Branch of Winter's Run south of the town of Jarrettsville and north of the town of Pleasantville.

European settlers began moving into Harford County in the mid-seventeenth century, but little remains of these initial settlements. The oldest buildings that can be securely dated are a half dozen vernacular-style houses of the 1740s located along the stream valleys. These streams served as major transportation routes to the interior of the county. With the gradual increase in population during the eighteenth century, a slow expansion developed from the coastal regions into the central and northern sections of the county. The opening of lands necessitated a system of roadways connecting houses, farms, and settlements.¹

Throughout the eighteenth century, the eastern interior of the county was known by European inhabitants as "The Barrens" as the area was characterized by a scarcity of timber.² It is believed that the Susquehannocks deliberately set fire to the area to improve opportunities for hunting. This resulted in infertile lands for several years after each burning. However, the increase of settlement in the eighteenth century halted this practice and after a few years the land became fertile and productive.³

With the development of the roads, mills began to spring up on almost every usable stream. As the agricultural base throughout the region shifted from tobacco to grain in the eighteenth century, Harford County's swift flowing streams made logical sites for over 400 gristmills. The mill of the eighteenth century stood out as one of the largest of community buildings, usually three stories high. The first mills were built of logs, with lime mortar filling the crevices. Later mills were of stone or frame construction with a waterwheel at the side, made of wood or iron. The gristmill is supplied water by the millpond which is filled continuously by damming the river. Early dams were constructed of logs, earth, or stone, to be replaced later with masonry and concrete.⁴ Maps of the area indicate that Phillips Mill was built by 1910 on the Eastern Branch of Winters Run, when George Phillips lived on the property. Little is known about the mill and its surrounding or about those who operated the mill.

¹ Wright, C. Milton. *Our Harford Heritage: A History of Harford County Maryland*. (Baltimore: 1967) 103-104.

² Ibid. 35.

³ Ibid, 35-36.

⁴ Ibid, 165-168.

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

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Name Bridge No. H-07000, Phillips Mill Road Bridge over the East Branch of Winters Run
Continuation Sheet

Number 8 Page 1

During the early part of the nineteenth century, an increase in travel developed, demanding that main routes be made more passable through the use of stone, gravel, and other paving materials.⁵ Road improvements included bridging major waterways. From 1825 to 1875, a number of covered bridges were built over larger streams throughout the region. Several of these structures remained in continual use until the mid-twentieth century.⁶ A bridge crossing the Eastern Branch of Winters Run was in existence by 1900, when land surveyors noted it on plat maps.⁷ The bridge was down stream from the mill and was used to cross the Eastern Branch as Phillips Mill Road was the connector between Putnam and Cooptown. In 1958, Phillips Mill Road was moved to a higher slope and the original road was abandoned. The bridge was removed and a new prestressed concrete box girder was built at its present location.⁸

Design and Construction

The Phillips Mill Road Bridge is a single span prestressed concrete box girder bridge consisting of two concrete abutments with outer walls that are six feet long. Nine concrete box girders sit on the abutments and support an asphalt two-lane roadway. Concrete parapets on each side sit atop the concrete box girders and project slightly beyond the girders. The parapets support guardrails that consist of a series of steel pipes connected by concrete beams. The clear span of the bridge is 25 feet. A small concrete abutment to the west of the bridge marks the location of the former bridge that stood at this site which was demolished to make way for the current span.⁹ The bridge is located in a rural area with sparse residential development.

As a prestressed concrete bridge built in the late 1950s, the Phillips Mill Bridge is one example that demonstrates Maryland's adoption of a relatively new technology in the mid-twentieth century. Early developments in prestressed concrete included patents in the late nineteenth and early twentieth centuries; however, the material was not readily used for bridge construction until innovations by Eugène Freyssinet in the late 1920s. Freyssinet's 1920 patent was significant, as it demonstrated the necessity of high strength steel for successful prestressing, which increased the overall strength of concrete.¹⁰ In conventional reinforced concrete, the high tensile strength of steel is combined with concrete's great compressive strength to form a structural material that is strong in both compression

⁵ Ibid, 110-113

⁶ Henry Clay Smith, undated, <http://www.tunza.com/henry_c.html>

⁷ Historic USGS Map of Harford, undated, <<http://historical.maptech.com/quad.cfm?quadname=Belair&state=MD&series=15>>

⁸ State of Maryland State Roads Commission, *Prestressed Concrete Box Girder Bridge, Phillips Mill Road over the East Branch of Winter's Run, Plan and Profile*, (Baltimore: May 1957) Sheet 1.

⁹ Ibid, 1-8.

¹⁰ Plowdon, David. *Bridges: The Spans of North America*. (New York: 1974) 310-320.

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and tension. The principle behind pre-stressed concrete is that compressive stresses induced by high-strength steel tendons in a concrete member before loads are applied will balance the tensile stresses imposed in the member during service. Compressive stresses are induced in pre-stressed concrete either by pre-tensioning or post-tensioning the steel reinforcement. In pre-tensioning, the steel is stretched before it is encased in concrete. In post-tensioning, the steel is stretched after the concrete hardens.¹¹ The pre-stressed concrete girder, developed by Freyssinet, was economical and versatile, applicable either continuously or as a cantilever, a box girder or a ridge frame.¹²

The first use of box beam or box girders is seen in railroad bridges in the early twentieth century. These fixed bridges consisted of steel girders fabricated by welding steel plates into various box-shaped sections. The present box girder form is a post-World War II development. The prestressed concrete box unit was used to a limited extent along the East coast prior to 1960.¹³ In 1954, the state erected, as part of the Baltimore-Harrisburg Expressway, a prestressed concrete girder bridge over Shawan Road in Baltimore County. This bridge, according to the text of the State Roads Commission report, was the first prestressed concrete bridge built in Maryland.¹⁴ The first concrete box girder was built in 1955 on Union Chapel Road over Cattail Creek in Howard County. By 1958, four prestressed concrete box girder bridges were completed and the concrete box girder bridge on Phillips Mill Road is one of the five prestressed concrete box girder bridges built in the state that year. The other four bridges presently remain in use.¹⁵ Within five years, eighteen bridges of this type were constructed in Maryland, three of which were in Harford County.¹⁶

¹¹ "Pre-stressed Concrete", undated, < http://www.cement.org/basics/concreteproducts_prestressed.asp >

¹² Plowdon, 310-320.

¹³ Ibid, 318.

¹⁴ State of Maryland State Roads Commission, *Report of the State Roads Commission of Maryland*. (Baltimore: 1954) 63-69.

¹⁵ Maryland State Highway Administration, *Bridges By Type and Year*, 2003

¹⁶ Maryland State Highway Administration, *Bridges By Type and Year*, 2003

9. Major Bibliographical References

Inventory No. HA-2046

See Continuation Sheet

10. Geographical Data

Acreage of surveyed property _____
Acreage of historical setting _____
Quadrangle name Bel Air, MD

Quadrangle scale: 1:24,000

Verbal boundary description and justification

The Phillips Mill Road carries Phillips Mill Run over the East Branch of Winters Run. The Bridge is located orth of the roads intersection with Cisner Road and south of the location where MD 23 overpasses Phillips Mill Road. The bridge has been associated with this site since its construction.

11. Form Prepared by

name/title	Ellen Jenkins / Roy Hampton and Amy Case		
organization	URS Corporation / Hardlines Design Company	date	October 2004
street & number	200 Orchard Ridge Drive / 4608 Indianola Avenue	telephone	301-258-9780 / 614- 784-8733
city or town	Gaithersburg / Columbus	state	MD / OH

The Maryland Inventory of Historic Properties was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
DHCD/DHCP
100 Community Place
Crownsville, MD 21032-2023
410-514-7600

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Continuation Sheet

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Henry Clay Smith, undated, <http://www.tunza.com/henry_c.html>

Historic USGS Map of Harford (Bel Air Quad), undated,
<<http://historical.maptech.com/quad.cfm?quadname=Belair&state=MD&series=15>>

Maryland State Highway Administration, *Bridges By Type and Year*, 2003

Plowdon, David. *Bridges: The Spans of North America*. New York: 1974.

"Pre-stressed Concrete", undated, < http://www.cement.org/basics/concreteproducts_prestressed.asp>

State of Maryland State Roads Commission, *Report of the State Roads Commission of Maryland*. Baltimore: 1954.

State of Maryland State Roads Commission, *Prestressed Concrete Box Girder Bridge, Phillips Mill Road over the East Branch of Winter's Run, Plan and Profile*. Baltimore: May 1957.

Wright, C. Milton. *Our Harford Heritage: A History of Harford County Maryland*. Baltimore: 1967.

Sources Consulted:

Maryland SHA Cultural Resource Library and Bridge Engineering Department, Baltimore - Reports published by or for the State Roads Commission, bridge files

Maryland Historical Trust Library, Crownsville - Inventory of Historic Places, National Register Nominations, Determinations of Eligibility, Cultural Resource Reports

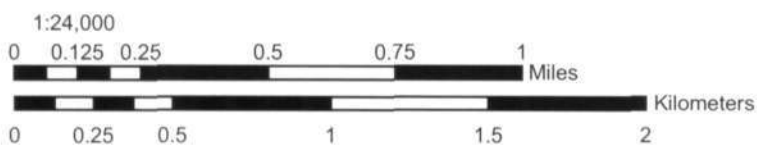
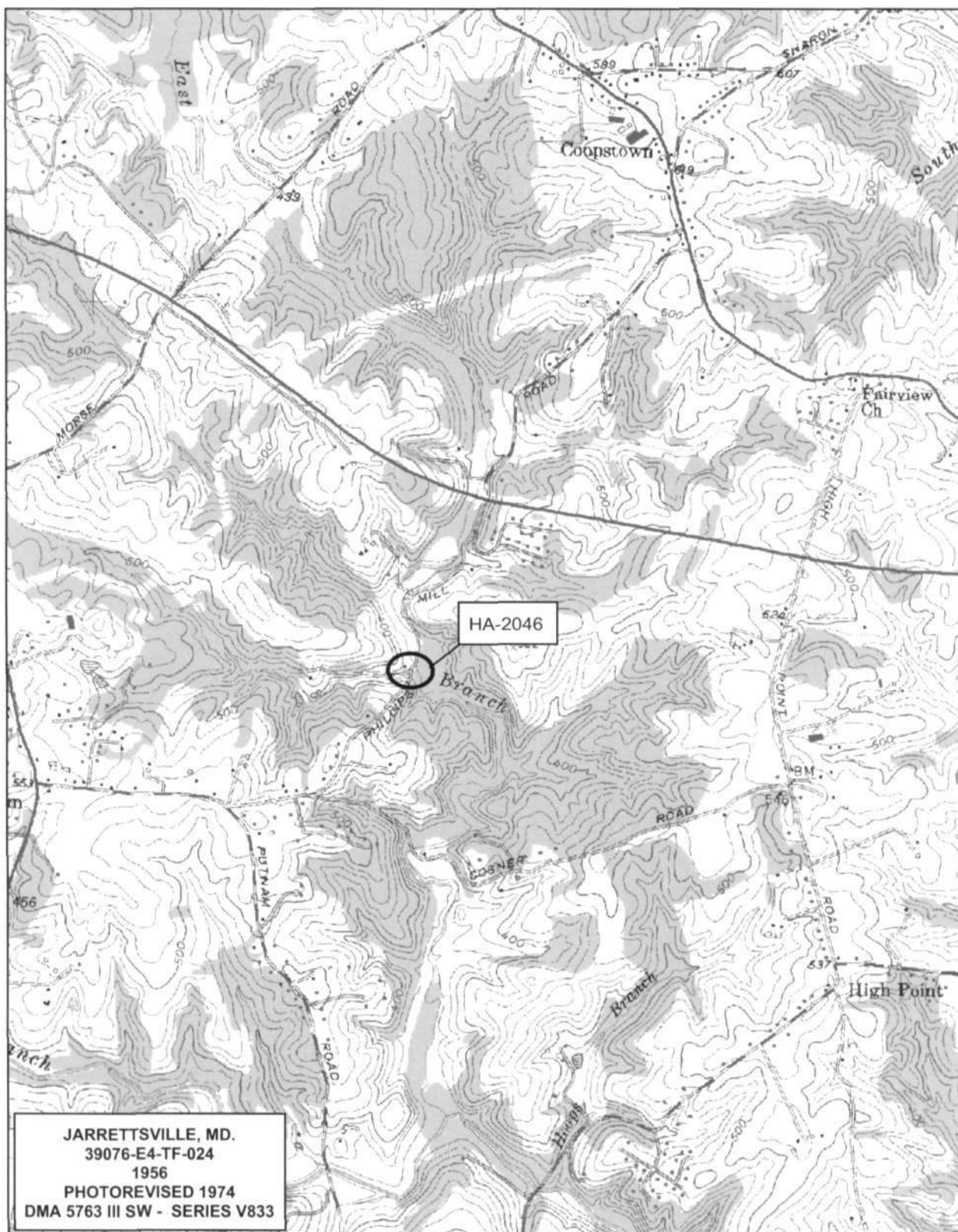
Maryland State Archives, Annapolis - photographs from the Sarikas Collection and materials published by the State Roads Commission

Enoch Pratt Library (Maryland Room), Baltimore - vertical files dealing with Maryland bridges

Library of Congress, Washington, DC - General information on bridges and additional Maryland bridge material

New Jersey State Library, Trenton - Engineering News-Record on microfilm

New York Public Library, (Science, Business, and Industry Library), New York - Additional SHA annual reports



MIHP # HA-2046
 Bridge H-07000
 Phillips Mill Road over East Branch Winters Run
 Jarrettsville Vicinity
 Harford County
 Jarrettsville, MD. Quadrangle



MIMP # HA-2046

Bridge # H-07600, Phillips Mill Rd over East Branch Winters Run

Harford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date: 6/10/03

Location of Negative: MD SHPO
deck of bridge, looking north

1/9



MHP # HA-2046

Bridge # H-07000 Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardlexes Design Company

Date: 6/10/03

Location of Negatives: MD SHPO

East elevation, looking southwest

2/9



MHP # HA-2046

Bridge # H-07060, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date: 6/10/03

Location of Negative: MD SHPO

East elevation, looking southwest

3/9



MIHP # HA-2046

Bridge # H-07000, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Ray Hampton, Hardlines Design Company

Date 6/10/03

Location of Negative: MD SHPO
west elevation, looking east

49



MIHP # HA-20461

Bridge # H-07000, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date 6/10/03

Location of Negative: MD SHPO

oblique view, west elevation, looking northeast
s/g



MIHP # HA-2046

Bridge # H-07000, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardnes Design Company

Date 6/10/03

Location of Negative: MD SHPO

Oblique view, West elevation, looking northeast

6/9



MHP # HA-2046

Bridge # M-07000, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date 6/10/03

Location of Negative: MD SHPO

Oblique view, West elevation, looking southeast
7/9



NIHP# HA-2046

Bridge # H-07000, Phillips Mill Rd over East Branch Winters Run
Marford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date 6/10/03

Location of Negative: MD SHPO

detail of date on southwest corner

8/9



MIMP # HA-2046

Bridge # M-07000, Phillips Mill Rd over East Branch Winters Run
Harford County, MD

Photographer: Roy Hampton, Hardlines Design Company

Date 6/10/03

Location of Negative: MD SHPC

old abutment northwest of bridge, looking east

9/9